

mena are too various, and the Calculations whereby they follow from those Propositions too intricate to be here prosecuted. I content my self with having prosecuted this kind of Phænomena so far as to discover their cause, and by discovering it to ratify the Propositions in the third Part of this Book.

## O B S. XIII.

As Light reflected by a Lens quick-silvered on the back-side makes the Rings of Colours above described, so it ought to make the like Rings of Colours in passing through a drop of Water. At the first reflexion of the rays within the drop, some Colours ought to be transmitted, as in the case of a Lens, and others to be reflected back to the Eye. For instance, if the Diameter of a small drop or globule of Water be about the 500th part of an Inch, so that a red-making ray in passing through the middle of this globule has 250 fts of easy transmission within the globule, and that all the red-making rays which are at a certain distance from this middle ray round about it have 249 fts within the globule, and all the like rays at a certain further distance round about it have 248 fts, and all those at a certain further distance 247 fts, and so on; these concentrick Circles of rays after their transmission, falling on a white Paper, will make concentrick rings of red upon the Paper, supposing the Light which passes through one single globule strong enough to be sensible. And, in like manner, the rays of other Colours will make Rings of other Colours. Suppose now that in a fair day the Sun shines through a thin Cloud of such globules

globules of Water of the same bigness shall appear in clouds of Colours, and shall be 7 $\frac{1}{2}$  degrees of the third 12 c as the globules shall be less or bigger experience answers it in a Vessel of stars Rings of Colours bows, concentrick first or innermost without, and white and red. Those blue within, and middle. And the in, and pale red another immediate in this continual white, red; purple pale blue, pale red measured from the side of the Sun, the other side was meters of the first but that of the degrees, and that of Crowns appear from beginning of the two such Crowns or innermost was